

## 2.9 ENVIRONMENTAL ACCOUNTING

Environmental accounting needs to work as a tool to measure the economic efficiency of environmental conservation activities and the environmental efficiency of the business activities of company as a whole. Management seldom tries to make proper arrangement to save the environment unless it is required as per law as there is no direct relationship between investment and benefits.

In many contexts environmental accounting is taken to mean the identification and reporting of environment specific cost such as liability cost and waste disposal costs. It is accounting for any costs and benefits that arise from change to a firm's, products and processes where the change also involves a change in environmental impact.

### Forms of Environmental Accounting

1. **Environmental Management Accounting (EMA)** : Management accounting with a particular focus on material and energy flow information and environmental cost information, This type of accounting can be further classified in the following sub-systems :
  - a. **Segment Environmental Accounting** : This is an internal environmental accounting tool to select an investment activity, or a project, related to environmental conservation from among all processes of operations, and to evaluate environmental effects for a certain period.
  - b. **Eco balance Environmental Accounting** : This is an internal environmental accounting tool to support PDCA for sustainable environmental management activities.
  - c. **Corporate Environmental Accounting** : This is a tool to inform the public of relevant information compiled in accordance with the Environmental Accounting. It should be called as Corporate Environmental Reporting. For this purpose the cost and effect (in quantity and monetary value) of its environmental conservation activities are used.
2. **Environmental Financial Accounting (EFA)** : Financial Accounting with a particular focus on reporting environmental liability costs and other significant environmental costs.
3. **Environmental National Accounting (ENA)** : National Level Accounting with a particular focus on natural resources stocks & flows. Environmental costs & externality costs etc.

### Need of Environmental Accounting at Corporate Level

It helps to know whether corporation has been discharging its responsibilities towards environment or not. Basically, a company has to fulfil following environmental responsibilities :

- a. Meeting regulatory requirements or exceeding that expectation.
- b. Cleaning up pollution that already exists and properly disposing of the hazardous material.
- c. Disclosing to the investors both potential & current, the amount and nature of the preventative measures taken by the management (disclosure required if the estimated liability is greater than a certain percent say 10 per cent of the companies net worth).
- d. Operating in a way that those environmental damages does not occur.
- e. Promoting a company having wide environmental attitude.
- f. Control over operational & material efficiency gains driven by the competitive global market.
- g. Control over increases in costs for raw materials, waste management and potential liability

### Scope of Environment Accounting

The scope of Environmental Accounting (here in after called as EA) is wide. It includes corporate level, national & international level. As far as this topic is concerned the emphasis is given on the corporate level accounting. The following aspects are included in Environmental Accounting :

1. From Internal point of view investment made by the corporate sector for minimization of losses to environment. It includes investment made into the environment saving equipment/devices. This type of accounting is easy as money measurement is possible.
2. From external point of view all types of loss are indirectly due to business operation/activities. It mainly includes :
  - a. Degradation and destruction like soil erosion, loss of bio-diversity, air pollution, water pollution, voice pollution, problem of solid waste, coastal & marine pollution.
  - b. Depletion of non-renewable natural resources i.e. loss emerged due to over exploitation of non-renewable natural resources like minerals, water, gas, etc.
  - c. Deforestation and Land uses.

This type of accounting is not easy, as losses to environment cannot be measured exactly in monetary value. Further, it is very hard to decide that how much loss was occurred to the environment due to a particular industry. For this purpose approx idea can be given or other measurement of loss like quantity of non-renewable natural resources used, how much Sq. meter area deforested and total area used for business purpose including residential quarters area for employees etc., how much solid waste produced by the factory, how much wasteful air pass through chimney in air and what types of elements are included in a standard quantity of wasteful air, type and degree of noise made by the factory, etc. can be used.

### **Limitations of Environmental Accounting**

Environmental Accounting suffers from various serious limitations as follows :

1. There is no standard accounting method.
2. Comparison between two firms or countries is not possible if method of accounting is different which is quite obvious.
3. Input for EA is not easily available because costs and benefits relevant to the environment are not easily measurable.
4. Many business and the Government organizations even large and well managed ones don't adequately track the use of energy and material or the cost of inefficient materials use, waste management and related issue. Many organizations, therefore, significantly underestimate the cost of poor environment performance to their organization.
5. It mainly considers the cost internal to the company and excludes cost to society.

### **Legal Framework for Environmental Accounting in India**

While industrial licensing has been abolished for all practical purposes, environmental clearance from various Government authorities has now taken the centre stage. With increasing global concern over the protection of the environment, India too has set up a Union Ministry of Environment with the object of coordinating among the states and the various ministries, the environmental protection and anti-pollution measures. Necessary legislation has also been passed.

The various laws relevant to environmental protection are as under :

1. **Directly Related to Environment Protection :**
  - (i) Water (Prevention and Control of Pollution) Act, 1974.
  - (ii) Water (Prevention and Control of Pollution) Cess Act, 1977.
  - (iii) The Air (prevention and Control of Pollution) Act, 1981.
  - (iv) The Forest (Conservation) Act, 1980.
  - (v) The Environment (Protection) Act, 1986.
2. **Indirectly Related to Environmental Protection :**
  - (i) Constitutional provision (Article 51A).

- (ii) The Factories Act, 1948.
- (iii) Hazardous Waste (Management & Handling) Rules, 1989.
- (iv) Public Liability Insurance Act, 1991.
- (v) Motor Vehicle Act, 1991.
- (vi) Indian Fisheries Act, 1987.
- (vii) Merchant of Shipping Act, 1958.
- (viii) Indian Port Act.
- (ix) Indian Penal Code.
- (x) The National Environment Tribunal Act, 1995.

